

REMARKS

The pending claims

Claim 1 recites a microarray of polymeric biomaterials comprising a base with a cytophobic surface and a plurality of discrete dry polymeric biomaterial elements non-covalently bound to the cytophobic surface. Claim 2 has been amended to recite a microarray comprising a plurality of discrete dry non-monolayer polymeric biomaterial elements non-covalently bound to the cytophobic surface. Either way, each of the polymeric biomaterial elements includes a soluble synthetic polymer, and at least two of the polymeric biomaterial elements include different soluble synthetic polymers. The other pending claims depend from claims 1 and/or 2 and specify further limitations. The amendments to the claims are supported by material throughout the specifications.

Rejections under 35 U.S.C. § 102

Claims 1-5, 8-11, and 15-20 stand rejected under 35 U.S.C. § 102 as being anticipated by Kim. Applicant submits herewith a declaration under 37 C.F.R. § 1.131 describing the conception and reduction to practice of the invention on a date before November 8, 2000, the filing date of Kim. Applicant submits that, in view of this declaration, Kim does not qualify as prior art under 35 U.S.C. § 102(e). Applicant submits that claims 1-5, 8-11, and 15-20 are patentable in view of Kim.

Claims 2-5, 9-11, 15 and 16 stand rejected under 35 U.S.C. § 102 as being anticipated by Johnson. Applicant respectfully traverses. Applicant submits that Johnson fails to disclose a microarray of polymeric biomaterials comprising a base comprising a cytophobic surface and a plurality of discrete dry non-monolayer polymeric biomaterial elements, non-covalently bound to the cytophobic surface, as recited by claim 2. Rather, Johnson discloses polyacrylamide hydrogel arrays to which biological molecules are attached by covalent bonds (see column 1, line 6 – column 2, line 47). Applicant submits that claims 2-5, 9-11, 15 and 16 are patentable in view of Johnson.

Rejections under 35 U.S.C. § 103

Claims 1-6, 8-11, 15-20 and 57 stand rejected under 35 U.S.C. § 103 as being unpatentable in view of Schultz, Sheu, Kapur, and Koob. Applicant respectfully disagrees. Applicant submits that none of Sheu, Kapur, and Koob remedied the failure of Schultz to disclose microarrays of polymeric biomaterials comprising a base comprising a cytophobic surface, wherein polymeric elements are bound to the cytophobic surface. Both Sheu and Koob disclose exemplary compositions for cytophobic surfaces. However, neither of these references disclose that a polymeric element may be bound to the cytophobic surface. Rather, both Sheu and Koob disclose the use of cytophobic surfaces to prevent cell attachment over an entire surface, not just those sections of a surface that separate polymeric elements. Kapur discloses arrays including both cytophobic and cell binding regions. However, Kapur discloses that these regions should be deposited as hetero-monolayers (column 42, line 23). That is, as described in column 42, line 36 – column 43, line 6, the cell adhesive and cell repulsive materials are deposited next to one another and bound to the substrate, not to each other. Kapur fails to disclose that anything should be bound to a cytophobic surface, let alone a polymeric biomaterial element, as recited in claims 1 and 2. Applicant submits that the combination of Schultz, Sheu, Kapur, and Koob would result in the disclosure of Kapur, in which cytophobic and cytophilic materials are deposited side-by-side on a substrate, not the invention recited in claims 1 and 2. Applicant submits that claims 1-6, 8-11, 15-20, and 57 are patentable in view of Schultz, Sheu, Kapur, and Koob, whether considered separately or in any combination.

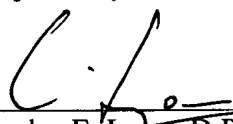
Claims 1-6, 8-11 and 15-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kim and Koob. Applicant submits that the Declaration under 37 C.F.R. § 1.131 described above removes Kim as a prior art reference and that Koob fails to disclose the invention as recited in the claims. Applicant submits that claims 1-6, 8-11 and 15-20 are patentable in view of Kim and Koob, whether considered separately or in combination.

Claim 57 stands rejected under 35 U.S.C. § 103 as being unpatentable over Kim and Kapur. Applicant submits that the Declaration under 37 C.F.R. § 1.131 submitted herewith removes Kim as a prior art reference. Applicant further submits that Kapur fails to disclose or suggest the invention as recited in claim 57. Applicant submits that claim 57 is patentable over Kim and Kapur, whether considered separately or in combination.

Conclusion

Based on the arguments presented above, it is submitted that the pending claims, as amended herein, are allowable. Applicant would like to thank the Examiner for his thoughtful comments and careful consideration of the case. If a telephone conversation would help expedite prosecution of this case, the Examiner is invited to contact the undersigned at (617) 248-4061. A petition for extension of time and the appropriate fee are submitted herewith. Additionally, please charge any fees that may be required, or credit any overpayment, to our Deposit Account No. 03-1721.

Respectfully submitted,


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